

REMARKS

Reconsideration and allowance in view of the foregoing amendment and the following remarks are respectfully requested. Claim 1 has been amended without prejudice or disclaimer.

Rejection of Claims 21-32 Under 35 U.S.C. §101

The Office Action rejects claims 21-32 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Applicants previously amended claim 21 to recite a processor and modules configured for controlling the processor. Applicants respectfully note that it appears that the current Office Action may be interpreting a previous version of the claims. Applicants have also made a minor amendment to the specification after a discussion of computers in the specification to reference the necessary hardware including the basic component of a processor. Accordingly, Applicants respectfully submit that claims 21-32 each now appropriately comply with Section 101.

Rejection of Claims 2- 3, 5, 22-23 and 25 Under 35 U.S.C. §103(a)

The Office Action rejects claims 1, 3, 5, 22-23 and 25 under 35 U.S.C. §103(a) as being unpatentable over Devine et al. (U.S. Publication No. 2003/0217190) ("Devine et al.") in view of Mital et al. (U.S. Patent No. 7,184,967) ("Mital et al."). Applicants respectfully traverse the analysis and the Office Action shall focus in a different direction than previous arguments. Applicants do not concede that it would be obvious of one of skill in the art to combine these references even under the KSR analysis which involve much simpler technology placing a sensor on a pedal. Applicants, however, shall discuss the teachings and suggestions from the art assuming for the sake of argument that they can be combined.

Applicants highlight that the call flow is for a spoken dialog service. On page 5 of the Final Office Action, it concedes that the reference fails to teach explicitly that the flow chart taught in Devine et al. is for a spoken dialog service. The Office Action then cites paragraph

[0067] which teaches that the methods described in the reference may be employed in many applications besides telephony services including gaming, video conferencing, billing and other applications. Applicants respectfully submit that the scope of the suggestion that may be gained from that paragraph is limited to the context of the disclosure of Devine et al. Paragraph [0002] teaches “delivering voice services over the cable network calls great promise as a service model that will allow cable network operators to expand revenue and services. In particular, the cable network provides a platform that allows for delivery of telephone services as a part of a ‘media-rich’ suite of services that will provide consumers with a single provider of media services.” The problem addressed by Devine et al. as is taught in paragraph [0005] is to identify ways for easily modifying and developing services for a client. The service provider (i.e., the cable service provider) is identified as being able to more easily address concerns and the requests of clients as well as more easily modifying services for any purpose such as for complying with changes to the law or to more efficiently process a call.

Applicants respectfully submit that our arguments with regards to the fact that Devine et al. is non-analogous to the present invention and the scope of its teachings are not as broad as are being treated in the Office Actions is because the teachings of the reference involve how cable services providers manage their network rather than anything related to spoken dialog service. For example, also in the background of the invention section, paragraph [0003] explains how cable television operators need equipment that will support voice and telephone services over the cable network. The telecommunication systems need to be easy to use and integrate into the cable network. They also teach that the current cable network service operators are typically faced with telecommunication service solutions and architectures that were developed for other industries, classes of providers, scales and physical plants. Moreover, Devine et al. explain that the cable service network operators must compete against various established telephone

companies. To do this, they need to be able to offer services that customers want and cannot be able to get from other provides.

Therefore, Applicants respectfully submit that it is clear that the context of the teachings of Devine et al. are limited a cable network service provider to respond to customer's needs within the network. Therefore, the flowcharts and references to telephony services are all in the context of what may be performed by a cable network service provider. This is why paragraph [0006] concludes with the reference of a telephony services being such as a call-waiting service which is a service provided by a cable network service provider. The abstract also references a telephony or telecommunications service as being a call-waiting service.

Applicants submit that the generic broadening language cited in paragraph [0067] would not suggest to one of skill in the art to go beyond the context of what a cable network service provider would do. In other words, gaming, video conferencing, billing and other applications all are applications that fall within the scope of what a cable service network operator may provide as a telecommunication service. The reason why Applicants respectfully submit that a spoken dialog service differs from these types of services is that when a user would call a spoken dialog service, it is irrelevant with regards to the particular network (whether a cable network or a public switching telephone network) and how a connection is made from the caller to the called spoken dialog system. The call flow that is described as being part of the spoken dialog system occurs outside of the context of the telecommunications network. In other words, Figure 1 of the present disclosure explains in step 104 how the spoken dialog system presents an initial query to the user of "how may I help you?". At the start of this call flow, the calling user is now connected to the spoken dialog system. The particular network through which this connection is made is irrelevant. The example call flow shown in Figure 1 is entirely processed within the spoken dialog system which is outside of the control of a cable network operator. As the spoken

dialog system receives input from the user and generates a response, the spoken dialog steps through the various elements of the call flow.

Therefore, Applicants respectfully traverse any of the analysis within the Office Action equates a telephony or telecommunication service with the call flow for a spoken dialog system. In order to make this even more clear, Applicants have amended the independent claims to require the call flow to be for a spoken dialog system.

Applicants also respectfully submit that there is an issue here with regards to the scope of understanding of a person of ordinary skill in the art. For example, Applicants maintain that Devine et al. is non-analogous to the present invention for yet another reason. Because Devine et al. focus on the functionality of a cable network service provider, Applicants submit that how to manage telephone calls through various components within the network including a TELCO trunk, an ISDN trunk, SS7 signaling channels and so on all require a person of skill in the art with regards to how call processing through a network occurs. Applicants respectfully submit that such a person is not going to be the same person who has skill in the art with regards to how to manage spoken dialog systems. As noted above, a spoken dialog system only needs a person to be able to call into it. Once that call is established, irrespective of the mechanism of how that call arrives at the server that would manage the call flow, a person of skill in the art of spoken dialog systems need to understand how to program and adequately manage a natural language dialog with a user using a call flow within that spoken dialog system. Applicants simply submit that the Office Action analysis necessarily require two different people. Therefore, when the Office Action says it would be obvious for one of ordinary skill to have a flowchart for a spoken dialog service or any other process that can be represented by a flowchart because Devine et al. states that the systems and methods described here may be employed in many applications besides telephony services, Applicants would query is this a person of skill in the art in spoken

dialog systems or is this a person of skill in the art of cable network service providers?

Applicants submit that these simply cannot be the same people given the complexities involved in each system. For example, the present inventor is a researcher at AT&T Labs focusing on spoken language system. There are completely separate groups within the present Assignee with deal with and have expertise in the networking aspect of the company's business. Therefore, Applicants submit that it can be easily established that no single person can have expertise that is "ordinary" that would span both separate technologies.

Next, Applicants focus on the last limitation of claim 1 regarding generating dialogs associated with the call flow by analyzing the state-based representation, wherein the generated dialogs may be used to test the spoken dialog system. Applicants note that paragraph [0006] of Devine et al. is cited as teaching this limitation in which they discuss a state machine design tool that allows a user to generate state machines by creating and processing a flow chart representation of a telephony service such as a call waiting service. Applicants respectfully traverse this analysis as insufficient. Given the discussion above, Applicants note that generated dialogs associated with a call flow of a spoken dialog system necessarily involves generating user input and system responses. This is an illustration of a "dialog" that is associated with a call flow of a spoken dialog system. There is no discussion in paragraph [0006] regarding generating any type of such dialog. Therefore this feature is not taught or referenced in the service.

Next, Applicants note that because a spoken dialog system necessarily occurs outside of the context of a service that would be provided by a cable network service provider, Applicants submit that the context of a flowchart representation of a telephony service also necessarily differs from a call flow within a spoken dialog system. Therefore, there are further differences in this regard. Applicants submit that there is no discussion in paragraph [0006] regarding any kind of "test." What is merely taught in this section is that a user may be able to generate state

machines by creating and processing a flowchart representation of a telephony service such as a call waiting service. Therefore, the scope of what is taught is that a telephony service within a cable network may be created and processed. There is no discussion regarding testing such service. Furthermore, this provides a fundamental difference in the overall context of spoken dialogs systems require much testing and analysis in order for the interaction to be as normal as possible for a user. Therefore, there is a need to generate test dialogs from a call flow for the spoken dialog system and claim 1 articulates a method of performing processing for the purpose of generating test dialogs. Applicants submit that there is no such requirement in a call waiting service inasmuch as the steps that are involved in call waiting are much more simple in terms of what occurs as compared to processing a user dialog in a spoken dialog system, that there is no conceivable need of the testing of the type in a spoken dialog system when a telephony service such as a call waiting service can be created and implemented. Therefore, Applicants respectfully submit that the concept of generating test dialogs associated with the call flow by analyzing the finite state representation is not taught or suggested in the reference.

Finally, as an additional argument in this regard, the state based representation as it is characterized in the Office Action is compared to the teachings of Mital et al, column 17, lines 15-17 as well as reference to lines 15-21. Here, the Office Action asserts that converting a workflow into a higher level representation (XML) is defined in a context free grammar. Claim 1 actually recites converting the context free grammar notation into a state based representation. In any event, Figures 22-24 of Mital et al. illustrate taking a simple workflow process and mapping it into XML tags and Figure 24 is taught as illustrating an example of an XML programming language syntax defined in the EBNF format. The Office Action asserts that the higher level representation here is the XML tagging process in the EBNF format. Applicants simply note that even if this is true, there is simply no teaching or suggestion of generating test

dialogs associated with the call flow in a spoken dialog system by analyzing such representations. Claim 1 requires the generation of such test dialogs based on the analysis of the state based representation and then wherein the generated test dialogs may be used to test the spoken dialog system. Applicants submit that based on the discussion set forth above, that the present analysis in the Office Action is far a field of the particular limitations of claim 1. Therefore, Applicants respectfully submit that claim 1 and dependent claims 2-12 as well as claims 21-32 are patentable and in condition for allowance.

Rejection of Claims 4, 6, 9-10, 24, 26 and 29-30 Under 35 U.S.C. §103(a)

The Office Action rejects claims 4, 6, 9-10, 24, 26 and 29-30 under 35 U.S.C. §103(a) as being unpatentable over Devine et al. in view of Mital et al. and in further view of Wallace (U.S. Patent No. 4,686,623) ("Wallace"). Applicants do not acquiesce that it would be obvious of one of skill in the art to combine Wallace with Devine et al. and/or Mital et al. Applicants respectfully submit that given the analysis set forth above, that these claims are patentable and in condition for allowance.

CONCLUSION

Having addressed all rejections and objections, Applicants respectfully submit that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited. If necessary, the Commissioner for Patents is authorized to charge or credit the **Novak, Druce & Quigg, LLP, Account No. 14-1437** for any deficiency or overpayment.

Respectfully submitted,

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